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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/596,479	06/19/2000	Jean-Christophe Audonnet	454313-2200.1	6603
20999	7590	04/07/2004	EXAMINER	
FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			MOSHER, MARY	
			ART UNIT	PAPER NUMBER
			1648	
DATE MAILED: 04/07/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/596,479	Applicant(s) AUDONNET ET AL.	
	Examiner Mary E. Mosher, Ph.D.	Art Unit 1648	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 17-28 and 38-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 17-28 and 38-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/14/2003 has been entered.

### ***Claim Objections***

Claim 17 is objected to because of the following informalities: "herepes" is a typo. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

Claims 17-28, 38-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haanes et al (5,753,235 or 5,804,197) in view of Wiktor et al (PNAS 81:7194-7198, 1984) and/or Xiang et al (Virology 219:220-227, 1996). This rejection is made for reasons similar to the 103 rejection made previously, but Wiktor and Xiang are cited instead of Paoletti to better address applicant's arguments. As discussed previously, Haanes teaches recombinant canine herpes virus as an expression vector and suggests that it be utilized in a vaccine delivery system. Haanes does not teach which rabies antigen to include in the recombinant CHV. Wiktor teaches that the G protein of rabies virus expressed from a live vaccinia vector is effective in protecting animals against rabies challenge. Xiang also teaches that the G protein of rabies virus

expressed from a live adenovirus vector is effective in protecting animals against rabies challenge. Therefore, it would have been prima facie obvious to choose the rabies G protein to carry out the suggestion of Haanes.

Applicant cites Xuan et al (Vaccine, 18:969-976, 1998) as providing evidence of an unexpected result for the CHV/RG recombinant, in that animals inoculated with the CHV/RG recombinant produced higher titers of neutralizing antibodies than animals inoculated with the commercial vaccine. The examiner does not agree that this result is unexpected. Wiktor states that a single inoculation with vaccinia/RG recombinant produced rabies-neutralizing antibody titers "consistently higher than those seen after repeated immunization with inactivated rabies viral vaccines of the type currently used for vaccination" (see page 7198). Xiang teaches that a defective adenovirus vector expressing rabies G protein induces even higher titers of rabies-neutralizing antibody than the vaccinia recombinant, see Table 1 on page 224. Therefore, high levels of neutralizing antibody are seen as an expected result of immunization with a live vector virus, not an unexpected result.

Applicant also cites Gilbert et al and Wardley et al as evidence that vaccinia and herpes vectors are not equivalent, arguing that the references show disparate results when using vaccinia or feline herpes virus as a vector to immunize against feline leukemia virus gp70. The data are actually not disparate; both publications teach no detectable antibody response to immunization with a gp70 recombinant virus. Gilbert teaches 0/2 antibody response to subsequent whole-virus FeLV booster in cats; Wardley teaches 2/6 antibody response to subsequent whole-virus FeLV challenge in

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cats. This is not convincing evidence of disparate results, considering the difference in sample size. Wardley showed that protection was not correlated to antibody status; Gilbert did not test protection. Therefore, these publications do not provide convincing evidence of disparate results using the same gene in different types of viral vectors.

Even in the absence of absolute certainty, the teachings of the prior art as a whole are seen to indicate a reasonable expectation of success.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary E. Mosher, Ph.D. whose telephone number is 571-272-0906. The examiner can normally be reached on M-T and alternate F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on 571-272-0902. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

4/5/04

  
**MARY E. MOSHER**  
**PRIMARY EXAMINER**  
**GROUP 1800** 1600